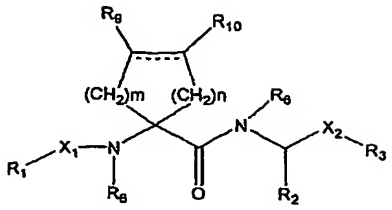
CLAIMS

1) Compounds of general formula(I):



(I)

wherein:

- X1 is a -NR6-CO-, -CO-, -NR6-CS- group;

- R1 is an aryl group selected from pyridine, thiophene, benzene, naphthalene, diphenyl, phenylthiophene, benzothiophene, benzofuran, N-indole substituted by an R7 group, where said aryl group may also be substituted by one or more independent groups selected from halogen, C1-C6 alkyl optionally substituted by not more than three fluorine atoms (i.e. trifluoromethyl group), C1-C6 alkyloxyl, optionally substituted by not more than three fluorine atoms (i.e. trifluoromethyloxyl group), -OH, -NHR7, -N(R7)2, -SR7, -CONHR7, -COR7, -COOR7, -R8COOR7, -OR8COOR7, -R8COR7, -CONHR7, -R8CONHR7, -NHCOR7, -nitro, where R7 is hydrogen or C1-C6 alkyl with a linear or branched chain, and R8 is a C1-C6 alkylene group with a linear or branched chain;

- R6 is selected from a group consisting of hydrogen or a C1-C6 alkyl with a linear or branched chain;

- the broken line indicates a possible double bond and n and m may independently be 0, 1, 2;

- R9 and R10 are selected independently in the hydrogen, C1-C6 alkyl group or may be connected to form an aromatic group selected in a phenyl group;

- X2 is selected in the group formed of -(CH2)p-, -(CH2)q-CO-, -(CH2)s-O-(CH2)q-, -CH=CH-, -CH=CH-CO-, CH=CH-O-(CH2)q- where p may be 2, 3, 4; q may be 2, 3, 4; and s may be 1, 2;

- R2 is selected from a group consisting of an aryl-alkyl or aryl radical where the aryl part is selected in a group consisting of benzothiophene, indole, pyridine, pyrrol, benzofuran, thiophene, benzene, naphthalene, imadazole, diphenyl, and may optionally be substituted by one or more substituents selected independently from halogen, C1-C6 alkyl optionally

substituted by not more than three fluorine atoms (i.e. trifluoromethyl group), C1-C6 alkyloxyl, optionally substituted by not more than three fluorine atoms (i.e. trifluoromethyloxyl group), -OH, -NHR7, -N(R7)2, -SR7, -CONHR7, -COR7, -COOR7, -R8COOR7, -OR8COOR7, -R8COR7, -CONHR7, -R8CONHR7, -NHCOR7, -nitro, where R7 is hydrogen or C1-C6 alkyl with a linear or branched chain, and R8 is a C1-C6 alkylene group with a linear or branched chain;

- R3 contains at least a basic amino group and is selected from a group with general formula:

$$-R_4 - X_3 - R_5$$

where R4 is selected from a group consisting of:

- an –NR6- amino group;
- an aliphatic heterocycle containing one or two heteroatoms selected from N, S and O, and optionally substituted by one or two C1-C6 alkyl groups;

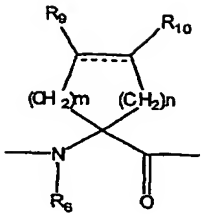
X3 can be a simple bond or is selected in the group consisting of (CH2)t-, -CO- , -O-(CH2)t-, -O- , -NH-CO-CH2-, -NH-CO- where t can be 1, 2 , 3;

R5 is :

- an aliphatic heterocycle, selected in the group consisting of pyrrolidine, piperidine, morpholine, tetrahydropyran, 1,4-dioxa-8-azaspiro [4,5] decane, dioxane, optionally substituted by one or more C1-C6 alkyl, hydroxymethyl, -OH, cyanomethyl and C1-C6 alkyloxy groups;
- a group selected from $-NR_{11}R_{12}$, -OR11 where R_{11}, R_{12} are independently selected in the group: hydrogen, C1-C6 alkyl;
- an aryl selected from thiophene, pyridine, furane or phenyl optionally substituted by one or more halogen, C1-C6 alkyl, C1-C6 alkyloxy and OH groups;

the pharmaceutically acceptable salts of compounds of formula (I) with organic and inorganic acids selected in the group: hydrochloric, sulphuric, phosphoric, acetic, trifluoroacetic, oxalic, malonic, maleic, fumaric, succinic, tartaric and citric acids; the possible optical isomers in the form of enantiomers or diastereoisomers, pure or in the form of racemic or non-racemic mixtures of said isomers; the "retro-inverted" compounds, that is, compounds having the structure of general formula (I), but wherein one or two amide bonds are reversed.

2) Compounds as claimed in claim 1, wherein the amino acid residue of general formula II:



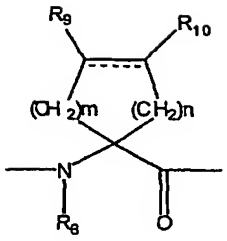
II

is selected in the group consisting of amino acid residues of: 1-aminocyclohexane-1-carboxylic acid, 1-aminocyclopentane-1-carboxylic acid, 1-aminocyclopent-3-ene-1-carboxylic acid, 1-aminoindane-1-carboxylic acid, 2-aminoindane-2-carboxylic acid, 2-aminotetraline-2-carboxylic acid,

and the other groups are as defined above.

3) Compounds as claimed in claim 2, wherein:

- X1 is a CO group
- R1 is an aryl group selected from naphthalene, benzothiophene, benzofuran, N- indole substituted by an R7 group; where said aryl group is optionally substituted by one or more groups independently selected from halogen, C1-C6 alkyl optionally substituted by not more than three fluorine atoms (i.e. trifluoromethyl group), C1-C6 alkyloxy optionally substituted by not more than three fluorine atoms (i.e. trifluoromethoxyl group), -OH, -NHR7, -N(R7)2, -SR7, -CONHR7, -COR7, -COOR7, -R8COOR7, -OR8COOR7, -R8COR7, -CONHR7, -R8CONHR7, -NHCOR7, -nitro, where R7 is hydrogen or a linear or branched C1-C6 alkyl chain, and R8 is a linear or branched C1-C6 alkylene group;
- R6 is selected from a group consisting of hydrogen or a C1-C6 alkyl with a linear or branched chain;
- the amino acid residue of general formula II:



II

is selected in the group consisting of amino acid residues of: 1-aminocyclohexane-1-carboxylic acid, 1-aminocyclopentane-1-carboxylic acid,

- R2 is a phenylmethyl group optionally substituted on the phenyl part by one or two groups independently selected from halogen, C1-C6 alkyl, Cl-6 alkyloxy, and OH
- X2 is as defined hereinbefore
- R3 contains at least one basic amino group and represents a group :

$$-R_4 - X_3 - R_5$$

wherein R4 is selected in the group:

- an –NR6- amino group,
- an aliphatic heterocycle selected from piperidine, piperazine, pyrrolidine optionally substituted by one or two C1-C6 alkyl groups;

X3 may be a simple bond or is selected in the group consisting of -(CH2)t-, -CO- , where t may be 1, 2 , 3;

R5 is :

- an aliphatic heterocycle selected in the group consisting of tetrahydropyran, morpholine, piperidine, optionally substituted by one or more groups C1-C6 alkyl, hydroxymethyl, -OH, cyanomethyl, and C1-C6 alkyloxy;
- a group selected from $-NR_{11}R_{12}$, -OR11 where R_{11}, R_{12} are independently selected in the group: hydrogen, C1-C6 alkyl;
- an aryl selected from thiophene, furane or phenyl optionally substituted by one or more halogen, C1-C6 alkyl, C1-C6 alkyloxy or OH groups;

4) Compounds as claimed in claim 3, wherein:

X1 is a –CO-group;

RI is a benzothiophene group, which may optionally be substituted by one or two groups selected independently from halogen, Cl-C6 alkyl optionally substituted by not more than three fluorine atoms,

the amino acid residue of general formula (III) is 1-aminocyclopentane-1-carboxylic acid,

R6 is hydrogen;

R2 is phenyl-methyl, with the phenyl group optionally substituted by a C1-C6 alkyl;

X2 is selected in the group consisting of -(CH2)p-, -(CH2)q-CO-, -(CH2)s-O-(CH2)q-, -CH=CH-, -CH=CH-CO-, where p is 3; q is 2: and s is 1;

R3 contains at least one basic amino group and represents a group:

$$-R_4 - X_3 - R_5$$

wherein

R4 is selected from a group consisting of:

- an –NR6- amino group;
- an aliphatic heterocycle selected from piperidine and piperazine

X3 may be a simple bond or is selected from the group consisting of -(CH2)t-, -CO- , where t may be 1, 2 , 3;

R5 is :

- a tetrahydropyran,
- a group selected from $-NR_{11}R_{12}$, -OR11 where R_{11}, R_{12} are independently selected in the group: hydrogen, methyl;
- a phenyl.

R6 is hydrogen;

5) Compounds as claimed in claim 4, which are as follows:

- (R) Benzo[b]thiophene-2-carboxylic acid {1-[1-benzyl-3-(3-dimethyl amino-propylcarbamoyl)-allylcarbamoyl]-cyclopentyl}-amide
- (R) Benzo[b]thiophene-2-carboxylic acid {1-[1-benzyl-3-(2-dimethyl amino-ethylcarbamoyl)-allylcarbamoyl]-cyclopentyl}-amide
- (S) Benzo[b]thiophene-2-carboxylic acid {1-[1-benzyl-3-(3-dimethyl amino-propylcarbamoyl)-propylcarbamoyl]-cyclopentyl}-amide
- (S) Benzo[b]thiophene-2-carboxylic acid {1-[1-benzyl-3-(2-dimethyl amino-ethylcarbamoyl)-propylcarbamoyl]-cyclopentyl}-amide

- (S) Benzo[b]thiophene-2-carboxylic acid {1-[1-benzyl-4-(4-benzyl-piperidin-1-yl)-butylcarbamoyl]-cyclopentyl}-amide
- (S) 6-Methyl-benzo[b]thiophene-2-carboxylic acid (1-{1-benzyl-4-oxo-4-[4-(tetrahydro-pyran-4-ylmethyl)-piperazin-1-yl]-butylcarbamoyl}-cyclopentyl)-amide
- (S) 6-Methyl-benzo[b]thiophene-2-carboxylic acid (1-{1-benzyl-4-oxo-4-[4-(tetrahydro-pyran-4-yl)-piperazin-1-yl]-butylcarbamoyl}-cyclopentyl)-amide
- (S) 6-Methyl-benzo[b]thiophene-2-carboxylic acid (1-{1-benzyl-4-[4-(2-hydroxy-ethyl)-piperidin-1-yl]-4-oxo-butylcarbamoyl}-cyclopentyl)-amide
- (S) 6-Methyl-benzo[b]thiophene-2-carboxylic acid (1-{1-benzyl-4-[4-(tetrahydro-pyran-4-ylmethyl)-piperazin-1-yl]-butylcarbamoyl}-cyclopentyl)-amide
- (S) 6-Methyl-benzo[b]thiophene-2-carboxylic acid (1-{1-benzyl-4-[4-(tetrahydro-pyran-4-carbonyl)-piperazin-1-yl]-butylcarbamoyl}-cyclopentyl)-amide
- (S) 6-Methyl-benzo[b]thiophene-2-carboxylic acid (1-{1-benzyl-4-[1-(tetrahydro-pyran-4-ylmethyl)-piperidin-4-yl]-butylcarbamoyl}-cyclopentyl)-amide
- (R) 6-Methyl-benzo[b]thiophene-2-carboxylic acid [1-(1-benzyl-2-{ 2-[1-(tetrahydro-pyran-4-ylmethyl)-piperidin-4-yl]-ethoxy}-ethylcarbamoyl)-cyclopentyl]-amide

6) Use of the compounds as claimed in claims 1-5 for the preparation of pharmaceutical compositions useful in the treatment of diseases linked to stimulation of the NK-2 receptor.

7) Use of the compounds as claimed in claim 6 for the preparation of pharmaceutical compositions for the treatment of respiratory diseases such as asthma, allergic rhinitis, ophthalmic diseases such as conjunctivitis, skin diseases such as allergic and contact dermatitis and psoriasis, intestinal disorders such as irritable colon syndrome, ulcerous colitis and Crohn's disease, urinary diseases such as cystitis and incontinence, erectile dysfunctions, diseases of the central nervous system such as anxiety, depression or schizophrenia, or tumor diseases, autoimmune diseases or diseases related to AIDS.

8) Pharmaceutical compositions containing as active ingredient at least one of the compounds of general formula (I) as claimed in claims 1-5, or mixtures thereof.

9) Pharmaceutical compositions as claimed in claim 8, also containing pharmaceutically acceptable excipients and diluents.

10) Pharmaceutical compositions as claimed in claims 8 and 9, for the treatment of diseases linked to stimulation of the NK-2 receptor and in particular for the treatment of respiratory diseases such as asthma and allergic rhinitis, opthalmic diseases such as

conjunctivitis, skin diseases such as allergic and contact dermatitis and psoriasis, intestinal disorders such as irritable colon, ulcerous colitis and Crohn's disease, urinary diseases such as cystitis and incontinence, erectile dysfunctions, diseases of the central nervous system such as anxiety, depression and schizophrenia, or tumor diseases, autoimmune diseases or diseases related to AIDS.